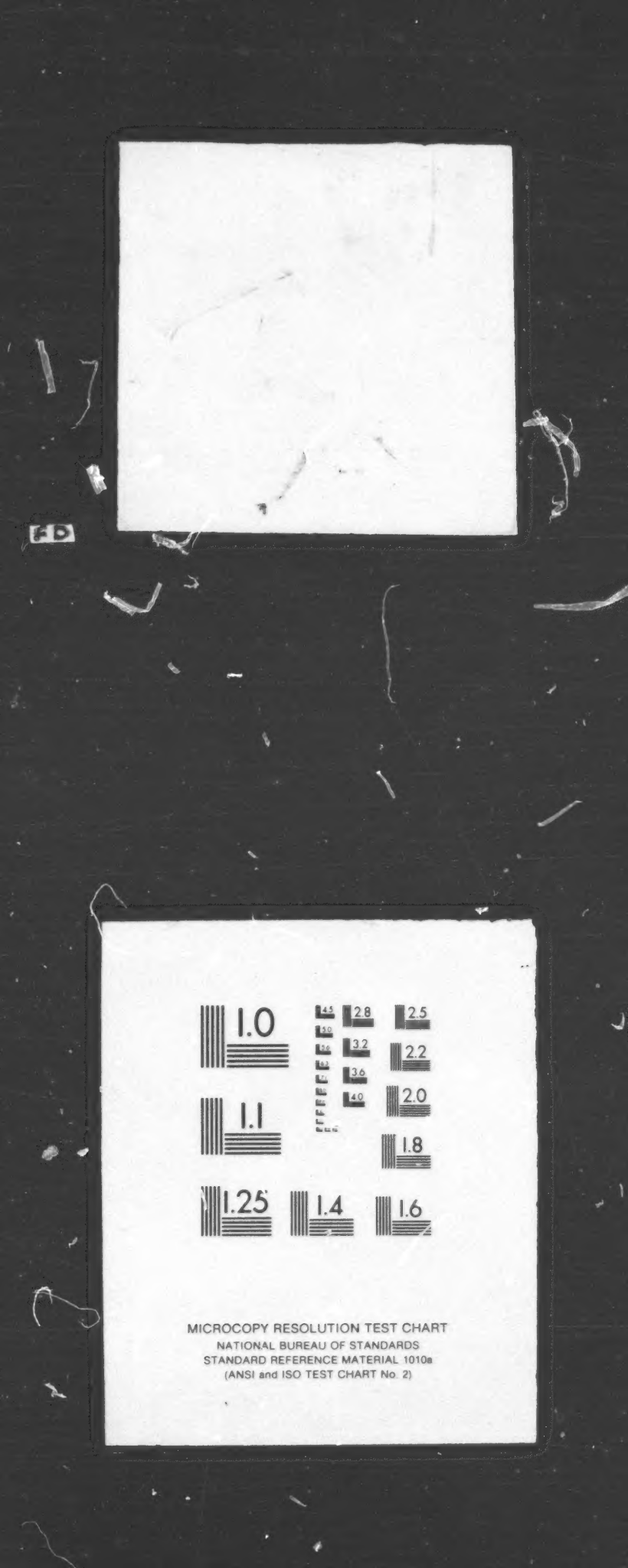
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ABSTRACT

The last decade has seen the emergence in the policy arena of a new form of qualitative research, one intended to strenghten its ability to generalize while preserving in-depth description. These multisite qualitative studies address the same research question using similar data collection and analysis procedures in a number of settings. To gain systematic knowledge about this phenomenon a study was undertaken of policy research projects in the field of education that were: (1) federally funded via a competitive request for proposals process, (2) involved the application of qualitative methods of data collection, and (3) compared several research sites. A two-step data collection strategy was employed. Telephone interviews were conducted with a key staff member of 25 projects. Subsequently documents were reviewed and site visits made to five projects. One important distinction among these multisite qualitative studies was the degree to which their methodology was "formalized." Formalization entails codification of the questions and variables to be studied, standardization of the data collection methods, and systematic reduction of verbal narrative to codes and categories. The variation in formalization observed across projects was substantial and seemed to result from different adaptations of academic social science to the policy research context. (Author)

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MULTISITE QUALITATIVE POLICY RESEARCH IN EDUCATION:

SOME DESIGN AND IMPLEMENTATION ISSUES1

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The classical qualitative educational research design is the case study. Studies of school life (Cusick, 1973; Wolcott, 1973), of the larger social forces affecting schooling (Ogbu, 1974), and of efforts to promote planned educational change (Smith & Keith, 1971) have used qualitative data in describing a single social setting. Typically, such studies emphasize in-depth description but provide a weak basis for generalization to other settings.

The last decade, however, has seen the emergence of a new form of qualitative research, one intended to strengthen its ability to generalize while preserving in-depth description. These multisite qualitative studies address the same research question in a number of settings using similar data collection and analysis procedures in each setting. They consciously seek to permit cross-site comparison without necessarily sacrificing within-site understanding. Although having some roots in academic social sciences (e.g., see Clark, 1970; Whiting, 1963; Whiting & Whiting, 1975), multisite qualitative research arose

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primarily in response to pressures from the federal government in the 1970s for studies that could overcome some of the weaknesses of large quantitative evaluations without being limited by the particularism of the single-site case study. Like many hybrids, it is today quite robust. However, these multisite qualitative studies were typically expensive endeavors and were done for specific policy purposes which the current federal administration seems neither to value nor to feel it can afford.

There are two important reasons for reflecting on the historical development and potential utility of multisite qualitative policy research at this time. Although it is unwelcomed by most social scientists, the current hiatus in commissioning policy research at the federal level provides researchers and policy makers with an opportunity to consider these issues in some detail. Further, the field of policy research has matured to the point where such considerations can be very fruitful. In recent years qualitative researchers have moved beyond the need to defend the legitimacy of their craft in the policy arena (Rist, 1977; Smith, 1978; Stake, 1978). Moreover, quantitative researchers are beginning to acknowledge a role for qualitative research in policy and evaluation studies (Cronbach, 1982; Hoaglin, Light, McPeek, Mosteller & Stoto, 1982) and to consider the proper balance of qualitative and quantitative techniques (Cook & Reichardt, 1979; Smith & Louis, 1982). In addition, practitioners of multisite qualitative policy research now exhibit sufficient confidence in their craftsmanship to begin a process of public self-criticism with

an eye to improving their methods (Firestone & Herriott, 1983; Miles, 1979; Smith & Louis, 1982; Yin, 1981).

Efforts to examine multisite qualitative policy research suffer, however, from the absence of descriptive data about the field's status and growth. While there are useful first-person accounts of individual projects (e.g., see Fetterman, 1982; Herriott, 1982) the field lacks systematic knowledge about a range of studies. The sections that follow offer a start in that direction. First we review the historical context associated with the use of this innovative design in the 1970s and present the results of a formal survey of 25 studies to highlight some of its institutional and methodological features. We then examine in detail the degree of "formalization" within five of these studies. Finally we consider ways in which current understandings of the strengths and weaknesses of multisite qualitive methods might be extended by academically oriented social scientists.

HISTORICAL CONTEXT

The tremendous growth of social programs in the 1960s led to even greater growth in the sponsorship of research about them in the 1970s. Initially, federally funded policy research concentrated on program outcomes, but gradually an expansion occurred to include an interest in program processes and implementation. Associated with this broadening of interest was a shift from the use of research designs that were exclusively quantitative to those that mixed quantitative and qualitative techniques and even to ones that were exclusively qualitative.

In the sections which follow we describe factors that contributed to this expanded interest in qualitative policy research and consider concerns about its validity and utility.

The Interest in Qualitative Research

Increased interest in qualitative research within the policy arena seems to have stemmed largely from a reaction against exclusively quantitative approaches. The reasons for this reaction have not been well documented, but involve a mixture of considerations focused on issues of political utility, scientific validity and forms clearance. One federal official notes a concern that early evaluation designs in the field of education were "findings poor" because they could not help policy makers understand why programs like Head Start and Follow Through had null effects or how to improve them (Datta, 1982). Another argues that the discontent was also with the content of the findings, "few of which were liked by program advocates" (Smith, personal communication, 1982).

The validity concerns with quantitative studies related to both outcomes and "treatments." In education, for example, the outcome problem focused on the potential bias in existing measures of pupil performance which, it was argued, mitigated against showing positive effects (with even the strongest quantitative designs) for the minority group members who were the object of the most ambitious federally funded efforts (Cohen, 1975). In a variety of fields, there was also a question as to whether the treatments (i.e., the federal programs) were sufficiently faithful to the intentions of their designers or enacted in a sufficiently uniform manner across

sites to permit a meaningful test of their effects (Weiss & Rein, 1970). This latter concern in particular contributed to a growing interest in the study of program implementation (Pressman & Wildavsky, 1973).

A further contributor to the interest in qualitatiave studies was the growth of a cumbertsome forms clearance process for instruments used in federal evaluation contracts. Introduced originally to protect private industry from redundant federal data collection for regulatory purposes, forms clearance by the Office of Management and Budget in the 1970s was embroiled in issues of federal-state relations and of individual privacy. The review process became a major obstacle to standardized data collection efforts--often requiring delays of six months or more between initial study design efforts and the initiation of data collection (Carter, 1977; Datta, 1982).

Over the course of the decade, qualitative studies increasingly came to be seen as a way to overcome the apparent limitations of quantitative studies. A former official of the National Institute of Education reports that qualitative studies were attractive to policy makers and program advocates because "case study approaches . . . tend to yield less controversial findings, ones with conclusions on both sides of a political decision" (Smith, personal communication, 1982). Qualitative studies also assisted in efforts to reconceptualize the issue of program implementation (Greenwood, Mann & McLaughlin, 1975). One official responsible for the Follow Through planned variation experiments reports an increasing reliance on qualitative studies to understand why Follow Through "models"

were implemented so differently in different schools (McDaniels, personal communication, 1982). Finally, by the end of the decade, many federally funded projects, particularly in the field of education, relied at least in part on unstandardized data collections to minimize or eliminate the "forms clearance hassle."

Concerns about Qualitative Research

Inspite of such pressures favoring the increased use of qualitative studies in federally funded policy research, qualitative approaches in their most highly developed academic form--that of anthropological ethnography--were often seen as having limited applicability to the policy context. A congressional aide, who later became an official at the National Institute of Education (NIE), reflected on the early experiences of that agency with the sponsorship of multisite ethnographic studies and openly questioned their relevance to the immediate needs of policy makers (see Mulhauser, 1975). However, an experience ethnographer, who was serving as an advisor to one of NIE's contractors, argued that ethnography would lose its credibility as a form of scholarship if it attempted to be evaluative (see Wolcott, 1975).

Concurrently, quantitative researchers questioned the ways that qualitative methods dealt with the problems of generalizability and reliability (e.g., see Campbell, 1974). Their concern was with the larger domain, if any, to which the findings from qualitative policy research could be applied. Often the question focused on the relationship of the sample under study to a larger population of policy interest

(generalization from sample to population), but it also focused on the relationship of what was being learned in individual sites to that at the "typical" location (generalization from case to sample). Moreover, some researchers and policy makers were quick to note that such a concern about "statistical generalizability" failed to consider the fact that policy makers seldom were concerned solely about the effects of a specific treatment on a specific population at a specific point in time. Rather they were continually attempting to extrapolate from current experience to future aspirations. Cronbach (1982, p. 76), for example, argues that "the evaluation of a program should lead/ to a statement about what to expect if a certain plan of action is adopted (or continued) in a certain site or class of sites." Such <u>forecasting</u> requires inferences that go well beyond statistical generalization and is problematic for all forms of research.

Traditional ethnography ignores issues of generalization and forecasting; it is radically particularistic. Spradley & McCurdy (1972, p. 3) define ethnography as "the task of describing a particular culture" and differentiate it from ethnology which compares and explains. To Wolcott (1975, p. 112) "An ethnography is, literally, an anthropologist's 'picture' of the way of life of some interacting group." Such a research tradition avoids efforts to explain, generalize, or draw lessons for application in other settings.

Sociologists doing qualitative research tend to be more willing to go beyond description. They have written a great deal about how qualitative research can be used to build theory,

including concepts and explanations. Glaser and Strauss (1967), for example, do not limit themselves to the study of a single "case". They and other qualitatively oriented sociologists proceed by generating explanations about a single social system intuitively and then disaggregating that case to individuals or events in order to seek confirmation or disconfirmation (Campbell, 1975).

One problem with this approach is that it throws very little light on generalizability beyond the particular case or on the conditions under which explanations derived from that case are likely to hold. All generalizations are, of course, tentative. However, one federal official suggested that the strenght of generalizations from case studies can be increased when many cases are included and the sample meets such criteria as substantial variety among cases, many similarities to the larger population of interest, and few unique characteristics (Kennedy, 1979). This line of reasoning was a major force behind the increasing federal interest in multicase qualitative studies.

The reliability issues for qualitative research has to do with the accuracy and stability of measurement. Quantitative researchers typically give great attention to these by carefully designing and documenting procedures and instruments (Selltiz, Wrightsman & Cook, 1976). In traditional qualitative studies, there is less prespecification of data collection procedures in order to permit the researcher to interact with the setting and gain insights in the process. This is one reason for the observation that qualitative research often increases construct

validity at the expense of reliability (McGrath, 1982). Such a view does not to imply that qualitative researchers are not concerned with accuracy. Rather they seek to improve it through nonquantitative means. These include extensive immersion in a setting, triangulation to check insights and hypotheses via multiple sources, socialization to a relativistic viewpoint and especially the habit of introspection to check against personal bias (Wolcott, 1975).

While the ethnographer's approach to accuracy is well accepted within the community of qualitative researchers, it was not viewed positively by most quantitative researchers, at least not initially (see Campbell & Stanley, 1966). Moreover, it encountered two problems in the policy world not faced in the academic world. The first stemmed from the adversarial nature of some policy research. Findings that are unpopular or disadvantageous to an interest group are often attacked on methodological grounds. The researcher must be able to describe and defend data collection and analysis procedures. Further the data may have to withstand extensive methdological critique and secondary analysis as has happened with two of the Coleman studies (see Mosteller & Moynihan, 1972; Hallinan & Olneck, 1982). Historically, qualitative researchers have had great difficulty disseminating their procedures and data in sufficient detail to make their studies amenable to either replication or secondary analysis.

The second problem associated with the reliability issue was specific to multisite research. Given the many sites needed to increase generalizability, the researchers seemed to lack the

flexibility of single-site designs. With more than one site, comparability of data collection, reduction and analysis procedures across all sites tended to be given priority over in-depth description at individual sites. In general this was done to ensure that whatever similarities and differences were noted among sites stem from inter-setting rather than inter-researcher variation (Pelto & Pelto, 1978).

Such questions about the validity and utility of qualitative research created new demands on qualitative policy researchers in the 1970s. They led to the introduction of the multisite design as a way to cope with the problems of generalizability and to the "formalization" of those designs as a way to cope with that of reliability.

A SURVEY OF MULTISITE QUALITATIVE STUDIES

To learn more about the expansion of multisite qualitative methods in the 1970s we undertook a formal telephone survey of federal officials and qualitatively oriented researchers. Through a snowball sampling process we identified 25 projects which: (1) were federally funded via a competitive "request for proposals" (RFP) process, (2) involved the application of qualitative methods of data collection within at least a major part of the overall design, and (3) intended to compare two or more research sites.2 Although the sampling process was clearly nonrandom it led to the selection of 25 projects of considerable diversity.

One of the most noticeable features of these projects is that whereas single-site case studies arise almost exclusively

within academia all but four of these multisite projects were located within the type of private research firm which at that time was specializing in quantitative policy research (Table 1). With only five exceptions each of these projects contained two or more distinct substudies with varying degrees of qualitative or quantitative emphasis. Overwhelmingly their qualitative substudies were imbedded within multimethod endeavors having quantitative components as well, thus providing opportunities not only for cross-site qualitative synthesis, but for the integration of qualitative and quantitative data (see Louis, 1982a). The funding for these projects was rather extensive (typically over one million dollars) and their duration lengthly (typically at least three years).3

While the intent of multisite qualitative policy research is to optimize description and generalizability, there is a persistent tension between these two objectives which permeates all research (Cook & Campbell, 1979; McGrath, 1982). In multisite qualitative research this tension seems to revolve around four design issues. The most prominent of these issues is the degree to which the data collection effort should be "structured". Cross-site comparison and generalization require researchers at all sites to use shared definitions of concepts and common data collection procedures to ensure that cross-site similarities and differences are characteristics of the sites and not the result of measurement procedures or researcher bias (Pelto & Pelto, 1978). Yet such standardization encourages researchers to ignore the unique aspects of each site and to overlook processes and contexts that may make special

contributions to the phenomena of interest. They also encourage the researchers to impose their definitions of the situation through premature conceptualization (Blumer, 1969).

A high degree of structuring of data collection is obtained through the use of closed-end, precoded questionnaires and interview schedules. Unstructured modes of data collection include unobtrusive observation and schedule-free interviewing. These are the primary forms of data collection for most traditional case studies. Our snowball sampling process excluded projects that relied primarily on highly structured data collection. Nevertheless, when we examined the data collection procedures employed by a major qualitative study within each of these 25 projects, we were surprised to find that only five relied primarily on unstructured data collection techniques. The other 20 employed primarily a variety of semi-structured procedures, including site-visit guides which specify the questions that must be answered but not the specific data sources to be used, open-end interview guides, and instructions for focused observation (Table 2). Such methods require that research issues be well thought out in advance rather than being derived "in the field." This heavy reliance on semi-structured procedures is clearly a major departure from the traditional single-site case study approach. It seems to represent an accomodation in the direction of quantitative methods, one made in order to facilitate cross-site comparison.

A second design issue concerns the number of sites to be studied. To a point, generalizability is enhanced by the inclusion of many sites (Kennedy, 1979). However, for any given

budget level, increasing the number of sites limits the resources that are available for describing and analyzing events at any one site or for cross-site comparison. Within this sample, the fewest sites studied was three and the most was 60 with a median of 11. The 25 studies seem to cluster into three distinct groups: those with three thru six sites (7 instances), those with eight thru 22 sites (13 instances), and those with 30 thru 60 sites (5 instances). The five studies with over 30 sites raise an interesting question: how does one synthesize the mass of qualitative data from so many locations when attempting to draw generalizations? One risk in attempting such a cross-site analysis is that the analyst will draw on the sites selectively, thus reducing data complexity but at the expense of representativeness. One alternative to such selectivity is to quantify the qualitative data through the use of rigorous coding schemes so that formal statistical models can be used in carrying out the cross-site analysis. Yet such quantification can undermine the descriptive value of qualitative research that the multisite design is intended to exploit.

A third issue is the length of time to be spent at each site for purposes of data collection. Long-term immersion (generally of over one year) is the hallmark of classical ethnography (Wolcott, 1975) and is an important means of ensuring valid description (Dawson, 1982). However, increasing the amount of time at any one site limits the resources available for studying other sites and for cross-site comparison and generalization. On-site presence in this sample of 25 studies fell into three broad categories: one or two short

visits to each site (10 instances), several intermittent visits (7 instances), and more continuous field work (8 instances).

Finally, the research team can emphasize site-specific reporting or cross-site, issue-specific reporting. Site-specific reporting is a literary device that enhances description but tends to mask similarities and differences across sites, thereby inhibiting generalization. Cross-site, issue-specific reporting facilitates generalization, but often at the expense of site-specific context. Although most of the 25 studies we surveyed used both site-specific and cross-site qualitative reporting formats, 12 emphasized the former and 13 the latter.

FORMALIZATION IN QUALITATIVE RESEARCH

While our survey provided a rough outline of the features of multisite qualitative studies, it raised a number of questions about how those features were combined and the extent to which they were complementary. To learn more, we conducted our own multisite qualitative study of five of these projects. This more intensive examination suggested one pervasive dimension underlying the methodological arrangements used in all of the projects: formalization. Formalization affects three aspects of the research process. In particular:

- Whereas traditional qualitative research tends to emphasize the discovery of relevant questions and variables while in the field, these multisite studies tended to emphasize the codification of questions and variables before beginning fieldwork.

- Whereas traditional qualitative research tends to emphasize unstructured questioning and observation, these multisite studies tended to emphasize the standardization of data collection procedures through the use of semistructured interview and observation protocols.
- Whereas traditional qualitative research tends to emphasize extended presentation of verbal narrative, these multisite studies tended to emphasize the systematic reduction of verbal narrative to codes and categories.

While any one of these shifts alone would constitute simply a minor adaptation to the policy arena, the simultaneous occurence of all three produced a radical transformation in the way qualitative research is conducted. This transformation has been driven in part by the need to coordinate data collection in many sites and to ensure responsiveness to a client's need for cross-site conclusions. In addition, some advocates of such coordination argue that problem-driven research using standardized techniques for data collection and analysis increases the truth or accuracy of qualitative research by responding to standards of validity and reliability traditionally associated only with quantitative research (Huberman & Miles, 1983). To them, what we have characterized as "formalization" represents a major improvement in the way that qualitative research is conducted and appraised.

The advantages and disadvantages of this dramatic shift in the conduct of qualitative research are currently being debated

by many of the principals (e.g., see Louis, 1982a; Miles, 1979; Rist, 1980; Wolcott, 1980; Yin, 1981;). Our research does not enter that debate directly. Rather it seeks to inform it by describing the degree to which the five policy research projects we examined formalized their research approaches. In the sections which follow we present the organizational context and structure of each project, describe variation in the degree of formalization across them, and consider the utility of highly formalized designs.

Five Multisite Projects

We began the intensive phase of our research by arraying all 25 projects in terms of two variables obtained via the telephone survey: the number of sites and the length of time spent in collecting data at each site (see Table 3). We then selected for detailed study one project from each of the five cells where either variable was relatively high.4 Each of the five projects used research teams to carry out qualitative field work at multiple sites with the intent of making cross-site generalizations. They differed substantially, however, in their methodological approach. The five projects are:

- The Rural Experimental Schools (RES) Study. Initiated in 1972, this complex multimethod project at Abt Associates Inc. explored the utility of comprehensive change efforts for reforming schools. In one of its five major substudies, ethnographic field work was conducted in 10 rural school districts over a three-year period by full-time "on-site researchers"

trained in the discipline of anthropology or sociology. The field work was coordinated by Stephen J. Fitzsimmons, Robert E. Herriott and Michael B. Kane5.

- The Experienced-Based Career Education (EBCE) study. This research by The Huron Institute was inaugurated in 1976 to learn if EBCE "models" developed by four regional educational laboratories would be effective when exported to a wide variety of public school settings. Attention was also given to learning about program implementation as a social process. Over a three-year period three social scientists made several short visits to 45 schools. The amount of time spent at each school site varied from one to 22 person-days. Field work was conducted by Peter Cowden, John DeSanctis and Eleanor Farrar with David Cohen serving as senior advisor.
- The Career Intern Program (CIP) Study. The CIP program originated at one site as a promising way to train minority youth to be employable workers or enter higher education. In 1978 it expanded to four geographically scattered sites. Through a multimethod study the RMC Corporation investigated what happens when an attempt is made to replicate the prototype in new settings, what produces "successful" program outcomes and what those outcomes were. For purposes of an ethnographic substudy, approximately seven rounds of two-week visits were made to each site by a trained anthropologist. Key senior staff members included David Fetterman,

Kasten Tallmadge and Peter Treadway.

- The Parental Involvement (PI) Study. Begun in 1978, this large-scale project conducted by System Development Corporation described the form and extent of parental involvement within four federal educational programs. Data were collected at 57 sites over a four-month period by half-time, on-site field researchers. The formal academic training of these field workers varied from the pre-bachelors to post-doctoral level. All field work was coordinated by a staff of social scientists which included Ward Keesling, Ralph Melarango, Al Robbins and Allen Smith, each of whom played an active role in cross-site data analysis.
- The Dissemination Efforts Supporting School Improvement (DESSI) Study. This complex multimethod study was commissioned in 1978 to reconsider assumptions underlying federal dissemination strategies, to learn how school districts undertake planned change, and to examine whether the federal government should promote fidelity to externally developed program models or local adaptations. Under the direction of David P. Crandall, The Network Inc. coordinated the work of a series of subcontractors, one of whom undertook case studies of 12 schools. Field work of approximately eight days per site was carried out over a three-month period by Jo Ann Goldberg, A. Michael Huberman, Matthew B. Miles and Beverly Taylor, with Huberman and Miles

subsequently conducting the cross-site analyses.

Three of these five projects (RES, EBCE & CIP) were supported by the National Institute of Education and two (PI & DESSI) by the Office of Planning, Budget and Evaluation in the Office (later Department) of Education. All five were carried out by private corporations and were multimethod endeavors which included quantitative surveys in addition to the "case studies" we focused on. The projects ranged in duration from 33 months (PI) to eight years (RES) and in total budget level from $1 million (CIP) to $5 million (RES).

Variation in Formalization

As noted above, what we are referring to as "formalized" qualitative research projects tend to have more codified research questions at the beginning, more standardized data collection procedures, and more systematic means to reduce verbal data to categories for analysis. Table 4 summarizes variation among the five projects we studied in terms of each of these definitional elements.6

The classical qualitative research begins with only the most tentative research problem, and the first days in the field become an important time for fleshing out an understanding of the phenomena of interest (Geer, 1969). Formalized qualitative research begins with well specified conceptual models and uses early field work to refine the conceptualization and either to check the feasibility of questions or primarily to collect the necessary data. Within the five projects we studied RES embraced the traditional ethnographic field work model most fully,

delegating the task of designing case studies to the individual on-site researchers, each of whom was an experienced field worker. Thus, there was never a central guiding conceptualization for its qualitative research. The EBCE team reported to us that in retrospect they could see the seeds of their major findings in their earliest proposal--perhaps reflecting ideas they had developed in doing other studies of implementation--but neither they nor the CIP team developed any formal a priori conceptualization to guide the research. PI and DESSI operated very differently. One staff member from the PI team devoted the first few months of the project to generating a model which elaborated five dimensions of parental involvement; he devoted less attention to specifying its causes and consequences. The DESSI team developed a comprehensive model of the major variables thought to affect educational change efforts and explicated 34 research questions. The RES, EBCE and CIP teams each used early field work to become grounded conceptually, with RES and EBCE making explicit reference to using the first year to develop their theory along the lines suggested by Glaser and Strauss (1967). The PI and DESSI teams moved more quickly to collecting the data called for by their conceptual models, although those models were modified somewhat over time (see Table 4, Indicators 1 & 2).

As noted in the previous section, data collection techniques can vary on a continuum from unstructed, where researchers simply observe and ask questions, to highly structured, where closed-ended precoded instruments are used. The RES study never had a centrally imposed structure for its qualitative data

collection. However, over time some of the on-site researchers became progressively more structured in their approach, but only one developed formal inverview guides (see Firestone, 1980). In contrast such progressive focusing was the rule on EBCE and CIP. At the end of the first round of site visits the EBCE team took time to reassess its research objectives and to write position papers. They used the insights gained from that collective process to guide later field work. Field work for CIP was done in seven rounds of site visits. What was learned in the first was checked later. PI and DESSI relied primarily on semi-structured guides. PI developed theirs before the field work from the a priori conceptualizations. DESSI finalized forms after the first, brief round of site visits. In both cases field work was geared to completing those guides, and there was frequent monitoring by senior researchers on both teams to assure that adequate data were collected to answer each question at each sites (Table 4, Indicators 3 & 4).

Data reduction is the task of condensing information about each site to manageable proportions, and it too can vary in its prespectification, with more standardized modes generally thought to facilitate cross-site analysis. RES essentially left this task to the discretion of the individual on-site researchers, and no formalized procedures were used in CIP since a single field worker covered all four sites. EBCE experimented with a number of techniques, including creating a three-ring binder for each site in which field notes were cut up and organized by standard topics, and the use of wall charts to portray sites and topics in matrix form. In PI each field worker prepared a narrative

summary of data and observations for his or her site. These were followed by site-specific syntheses done by the central staff following a standard outline and using the summaries and various interview forms as data. Before completing its field work, the DESSI team generated "interim" summaries of some sites and a case study outline with detailed data displays including dummy tables and tentative causal flow charts. These were subsequently completed for each case (Table 4, Indicator 5).

Generally, traditional qualitative approaches show their rigor through extensive presentation of data close to its raw form while formalized qualitative approaches emphasize presenting primarily higher order data, one or more steps removed from the original field notes. RES reported its qualitative site data through book-length case studies (e.g., see Clinton, 1979; Firestone, 1980). EBCE presented illustrative quotes and vignettes in the cross-site analysis, but the reader cannot form an understanding of any specific site (see Farrar, DeSanctis & Cowden, 1980). CIP used a similar approach but presented chapter-length case studies of each site (see Fetterman, 1981). PI presented some site-specific vignettes, but displayed most of its data in extensive narrative tables with variables as rows and sites as columns (e.g., see Smith & Nernberg, 1981). DESSI prepared case studies which are available to interested reviewers, but its public document features summary graphic displays for specific sites that were distilled from field notes during case study development (see Huberman & Miles, 1982)--Table 4, Indicator 6.

The credibility of cross-site qualitative analysis can often

be increased by the use of explicit preplanned procedures, including rules and displays for coded data, and by intersubjective checks requiring that there be consensus within the research team on the accuracy of coding and analysis (Firestone & Dawson, 1982). RES did not use standardized procedures for cross-site analysis, but its use of multiple independent synthesizers of the case study narratives (and in one instance the simultaneous presentation of five syntheses in a single report--see Herriott & Gross, 1979) enhanced the credibility of its approach. EBCE and CIP relied on a similar form of intuitive cross-site analysis, although only one synthesis was done within each project. The use of a team of three researchers on the EBCE study provided some checks and created the opportunity for each researcher to have to defend his or her conclusions. Teamwork was less evident in the CIP case, but the overall project director aggressively reviewed and challenged all reports. PI required that all conclusions be apparent in cross-site analysis tables, and that both table entries and the verbal patterns be defended in formal analysis committee meetings organized by conceptual element and by program studied (Smith & Robbins, 1982). Within PI both attacks and defenses of conclusions were extremely sprited. The DESSI senior researchers developed complex and thorough procedures for sorting sites and variables and for displaying the results (Huberman & Miles, 1983). They checked each other's work, but not with the same degree of open review required by the group context of PI (Table 4, Indicators 7 & 8).

In order to summarize the narrative picture of these five

projects we read across the eight rows of Table 4 several times to get a sense of the range of variation on each indicator. We then read down each of the five columns to discover the modal tendency within each project. Although our original intent was simply to divide the five projects into two ordered categories (low formalization and high formalization) the data reflected three (low, moderate, and high). The RES study stayed close to the traditional ethnographic approach by delegating the data collection and case study writing to individual on-site researchers and by deemphasizing standardized cross-site analysis. It was at the low extreme. DESSI and PI, with their early conceptualization, extensive instrumentation and standardized data reduction, analysis and reporting techniques, were at the opposite extreme. CIP and EBCE were intermediate (Table 4)7.

The Utility of Highly Formalized Designs

What can be said on the basis of our research about the utility of highly formalized multisite qualitative studies? In some ways such an assessment is premature because this approach is still so new. We have seen useful research conducted at all three levels of formalization that we observed. Nevertheless, formalization, at least to a point, seems to have distinct advantages. The development of an initial conceptual framework and its operationalization through a series of open-ended instruments is extremely useful for ensuring comparability in data collection across sites and responsiveness to the original research issues identified by the client.

The more formal data reduction and analysis techniques also facilitate drawing conclusions. They provide a much more precise language through which members of a reseach team and reviewers from the sites studied can describe and debate conclusions about specific settings and then about cross-site patterns. This language forces the team to confront differences of perception so that conclusions can be "audited" (Lincoln & Guba, 1982), and the agreement of a group of well-informed experts becomes a major claim for the credibility of findings.

Whether these techniques constitute a major advance in the reliability and validity of qualitative research is more open to question. By themselves, they cannot constitute stronger "proof" for the uninformed reader. A great deal of judgment goes into the development of the type of ratings utilized by both the PI and DESSI teams--much more than goes into the numbers analyzed in survey or experimental studies. The reader must take it on faith that these judgments are correct. Typically, such judgments are less well justified in the final report of a highly formalized study than in that of research using a more traditional ethnographic approach where substantial excerpts from original field notes are shared with the reader. The authors of some formalized studies point out that case study materials are available for external audit (e.g, see Huberman & Miles, 1982), but these are generally difficult to use by individuals who did not do the original field work.

In sum, techniques of formalization in multisite qualitative studies have advantages and disadvantages as means to bolster the credibility and utility of a research report. Their wider use

will depend in part on time and cost implications. Because they are fairly expensive to employ, we venture the preditions that they will become an important part of the "tool kit" of multisite qualitative researchers without becoming the sine qua non of good practice. The issue for those who commission and conduct qualitative policy research seems to be one of deciding how much formalization is appropriate under what combination of various scientific and political conditions (Cronbach, 1982; Firestone & Herriott, 1983).

DISCUSSION

The introduction of multisite qualitative research to the policy world was part of the methodological eclecticism that characterized that field as it expanded rapidly in the 1970s. Although this design had its precursors in academic social science, it was largely an invention of federally-funded contract resarch. By the end of the 1970s, multisite qualitative studies were a fragile part of the policy scene. There was clearly "something in the air" which made this type of study useful to federal research sponsors, but there was great ambiguity on the part of both sponsors and researchers on matters of study design and implementation (Firestone & Herriott, 1983). From a historical perspective, the formalization that took place in the 1970s was an adaptation to the demands of the policy context. Just as quantitative researchers were seeking to enrich their understanding by incorporating qualitative elements into their work (e.g., see Cook & Reichardt, 1979) so qualitative researchers borrowed some techniques and invented others in order

to address canons of good work widely accepted in the quantitative world (Smith & Louis, 1982).

The current hiatus in the commissioning of large-scale policy research provides academically oriented social scientists with unusual opportunities to explore in some detail the strengths and weaknesses of this design. In the process multisite qualitative research may have to be adapted back to the academic setting which, unlike the federal policy context, generally requires that research be done at more modest cost but with longer time lines.

Academic researchers can facilitate the development of multisite qualitative research by examining in greater detail than was possible in this study a broad range of methodological issues. For example, one current need is to understand better the consequences of different staffing patterns for data collection. This is an especially important issue in qualitative research where the investigator is often the crucial "instrument" (Sanday, 1979). It may be useful to conduct research which compares alternative data collection patterns. One such pattern is the use of a single investigator to carry out all field work in all sites (see Metz, 1978). Such an approach standardizes the data collection "instrument" across sites without sacrificing the potential for in-depth description, but it seems limited to situation involving no more than three or four sites. An alternative possibility is to provide greater data collection structure across multiple field workers, either through the use of field manuals (Campbell & Levine, 1973) or by having the different field workers prepare case study narratives for their

sites using a common format agreed to after conducting some field work (see Herriott & Gross, 1979). Although there has been some effort to compare such approaches, it has not been as systematic or as extensive as it could be (Perlman, 1973). It would also be useful to know the conditions under which it is preferable to use "local" residents or professional researchers as field observers and about the advantages and disadvantages of doing cross-site comparison and generalization with field workers collaborating "in committee" or with "outside experts" who work only with the site-specific case study narratives.

Another crucial issue is the consequences of different approaches to the standardized reduction of unstandardized data. Such reduction is a necessary first step to any analysis within or across sites (Goetz & LeCompte, 1981). The potential of any study for useful, valid description and generalization depends on the analysts' ability to reduce data to a manageable form without distortion or loss of meaningful detail. Studies with a large number of sites, or where the principal investigator is not intimately familiar with all locations, are especially dependent on their approaches to data reduction. While we currently have some craft discussion of how data reduction was done in specific projects, we need to know more about the advantages and disadvantages of the quantification of qualitative data (see Louis, 1982b; Talmage & Rasher, 1981), and of verbal tabular and graphic data reduction devices (see Huberman & Miles, 1983; Smith & Nerenberg, 1981). Other issues in need of attention are the timing of site visits in light of the phenomena under study, examination of processes and outcomes at different programatic

levels (student, classroom, school, district, etc.) and alternative modes of presenting the results of research to policymakers.

Due to the pressure of time, major methodological issues of the type illustrated above can seldom be addressed systematically in the course of policy studies. Academically oriented methodological studies represent an opportunity to more fully explicate the logic of this developing research form and to examine in detail its utility in both academic and policy contexts.

NOTES

1. This paper is an expansion of one prepared with support from The National Institute of Education under contract No. 400-80-0019 and subsequently published by the American Educational Research Association--see Herriott & Firestone (1983). It does not, however, necessarily reflect the view of either agency. We are particularly indebted to Fritz Mulhauser of the Institute's staff for his unfailing facilitation of our research, and to AERA for permission to use materials for which they hold the copyright.

2. The snowball sampling process began with several highly visible qualitative researchers (Karen S. Louis, Matthew B. Miles, Ray C. Rist, Robert Yin) and federal officials (Edward Glassman, Frederick Mulhauser, Marshall Smith, James Vanecko). Through their recommendations--and the recommedations of persons suggested by them--a roster of approximately 100 candidate projects was created. Subsequent telephone calls to a person more knowledgeable about each project led to the elimination of approximately 75 projects, in most cases due to a failure to satisfy all three of the sampling criteria. For those projects meeting all criteria arrangements were made for a one-hour telephone interview, generally with the project's director. At the time of the interview the informant was queried about his/her project using a highly-structured "project profile" sheet as a guide. After the interview was finished a draft copy of the complete profile was sent to the informant and modifications requested if necessary. After the full set of 25 profiles had

been created and reviewed, they were used to code each project in terms of a series of summary categories. The key informants then reviewed that coding and suggested whatever further modification of the profile sheets or summary tables seemed warranted.

3. For a detailed description of each of the 25 projects, see Herriott & Firestone (1982, Appendix A).

4. No effort was made to achieve a random sample of projects within each of the five relevant cells of Table 3. Instead we endeavored to select a sample representative of the field of qualitative policy research in the 1970s by emphasizing variation on the following seven factors: the funding agency, the contractor organization, the date of contract award, the size of the contract, the lenght of the funding period, the previous experience of key federal monitors, and the disciplinary background of key project staff. We also gave priority to projects that our informants in the snowball sampling process suggested were methodologically sophisticated. For comparable data on all 25 projects, see Herriott & Firestone (1982, Appendix A).

5. The on-site researchers included Allan F. Burns, Charles A. Clinton, A. Michael Colfer, Carol J. Pierce Colfer, William L. Donnelly, Ronald P. Estes, Jr., William A. Firestone, Lawrence Hennigh, Stephen J. Langdon, Donald A. Messerschmidt, Marilyn C. Richen, Charles I. Stannard, and C. Thompson Wacaster. In addition to their case study reports these anthropologists and sociologists produced a lively literature on the stresses and strains of qualitative field work in the policy research setting--see Herriott (1980, Appendix D) for illustrative

citations.

6. To learn about each project we reviewed such documents as requests for proposals, the proposals themselves, assorted planning documents, final reports, and published books and articles. In four cases we conducted extensive interviews with key project staff at their offices to learn about things not apparent in the documents. The interviews focused on the natural history of each project, the interests of project staff and relevant outsiders, and a series of methodological and administrative dilemmas that we anticipated would arise frequently in multisite qualitative policy research. We spent from six to twelve hours talking with several members of each project team. (This step was not taken with the RES study since we had been members of its staff, Herriott as the project's director and Firestone as one of the on-site researchers.) For all five projects we later talked to at least one of the federal officials responsible for its monitoring to better understand the project's history and to obtain a client perspective.

7. Elsewhere we have considered three competing explanations for such variation in formalization: the technical requirements of the research, the demands of the research sponsors, and the interests of the research teams and their professional networks (see Firestone & Herriott, 1983).

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Table 1. Distribution of 25 Federally Funded Policy Research Projects on Five Context Variables.

Context Variable	Number of Projects
A. The contractor organization:	
Diversified private firm	12
Specialized private firm	9
University	4
B. The number of distinct substudies:	
None (i.e., a single unified project)	5
Two	5
Three	9
Four or more	6
C. The methodological emphasis:	
Exclusively qualitative	8
Primarily qualitative	12
Equal qualitative and quantitative emphasis	3
Primarily quantitative	2
D. The project's total budget:	
Less than $500,000	6
$500,000 to $1 million	6
$1 to 2 million	5
More than $2 million	8
E. The project's duration:	
Less than 2 years	7
2 to 3 years	5
3 to 4 years	6
More than 4 years	7

Table 2. Distribution of 25 Qualitative Policy Research Studies on Four Design Variables.

Design Variable	Number of Studies
A. The predominant data collection approach:	
Primarily semi-structured	14
Semi-structured with some unstructured	6
Primarily unstructured	5
B. The number of sites being studied:	
Three thru six	7
Eight thru twenty-two	13
Thirty thru sixty	5
C. The degree of on-site presence:	
One or two short visits	10
Several intermittent visits	7
Many repeated visits or continuous presence	8
D. Analytic emphasis of report narrative:	
Primarily site-specific	12
Primarily cross-site with some site-specific	3
Exclusively cross-site	10

Table 3. Distribution of 25 Qualitative Studies by Length of Time on Site and the Number of Sites. (The five studies selected for intensive study are identified parenthetically.)

Length of Time on Site	Number of Sites		
	2-5	6-15	16+
One or two short visits	2	3	5 (EBCE)
Several intermittent visits	1	5 (DESSI)	0
Many repeated visits or continuous presence	3 (CIP)	3 (RES)	3 (PI)

Note: For the identity of all 25 studies, see Herriott & Firestone (1982, Appendix A).

Table 4. Descriptive Characterization of Five Projects on Eight Indicators of Formalization

Indicator of Formalization	Project				
	REX	EDCK	CIP	DCSSI	PI
Codification					
1. Formal a priori Conceptualization	None	Implicit based on thinking on implementation	Minimal, mostly from proposal	Detailed explication of the major variables thought to affect educational change efforts	Detailed explication of five dimensions of parental involvement
2. Purpose of Earliest Field Work	To become grounded in the site and its larger sociocultural context	To explore the phenomenon of experience based career education at each site	To become acquainted with the key personnel of each site	To collect initial data on the various a priori variables and refine the conceptualization	To collect initial data on each of the five dimensions
Standardization					
3. Dominant Early Data Collection Format	Unstructured observation and interviewing	Unstructured observation and interviewing	Mostly unstructured interviewing and observation loosely guided by proposal	Informal interviewing and observation, some semi-structured.	Highly structured extensive "analysis packets" based on conceptualization
4. Dominant Later Data Collection	Unstructured observation and interviewing	Semi-structured observation and interviewing	Mostly unstructured interviewing & observation guided by emerging conceptualization	Semi-structured interview guide based on conceptualization	Semi-structured extensive "analysis packets" based on conceptualization
Reduction/Analysis					
5. Site-specific Data Reduction Approach	Left to discretion of each fieldworker at each site	Transfer of field notes into a notebook for each site & rating of each site on a series of emergent variables	Summaries by site on programmatic topics	Systematic coding of field notes and preparation of a standardized site summary for each site	Site summaries by field workers and synthesis by central staff
6. Site-specific Data Presentation Approach	Extended narrative case studies for eight sites Brief semi-structured case studies for five sites	Frequent use of illustrative quotes and vignettes for unidentified sites	Chapter length case studies in topical report	Standardized charts for each site Semi-structured case studies for each site	Standardized verbal tables comparing sites on variables Frequent use of illustrative quotes and vignettes
7. Cross-site Data Analysis Procedures	Traditional literature reviews by various non-field workers of draft case studies	Intuitive analysis by the three field workers as a team	Intuitive analysis by the single field worker responsible for cross-site analysis	Display and systematic analysis of data using pictorial techniques by two of the four field workers	Formation of analysis committees of non-fieldworkers to systematically sort sites and variables
8. Intersubjective Checks on Data Reduction and Analysis	Multiple independent synthesizers	Informal discussion by the two field workers when on site trips Collaborative review of field notes & draft analyses by the three field workers	Informal discussion of facts of each case by research team	Collaborative review of field notes and draft analyses	Periodic discussion between field workers and their supervisors Creation of "analysis committees" of supervisors
Overall Index of Formalization	Low	Moderate	Moderate	High	High